

REMARKS

I. Introduction

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 1-8 are requested to be canceled. The cancellation of claims does not constitute acquiescence in the propriety of any rejection set forth by the Examiner. Applicants reserve the right to pursue the subject matter of the canceled claims in subsequent divisional applications.

Claim 9 is currently amended.

Claims 10-12 are new.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

Upon entry of this Amendment, claims 9-12 will remain pending in the application.

Because the foregoing amendments do not introduce new matter, entry thereof by the Examiner is respectfully requested.

II. Response to Issues Raised by Examiner in Outstanding Office Action

a. Claim Rejections - 35 U.S.C. § 102

Claims 1-9 are rejected under 35 U.S.C. § 102(b) as being anticipated by Zgoulli (US 5,456,985) and Matsukawa (US 3,660,304). As noted above, claims 1-8 are canceled. Applicants have focused the claims on a method for producing a microcapsule.

According to the present invention, an oil-based water-immiscible core material is first suspended in an aqueous solution of gum arabic, and then an aqueous solution of an enteric anionic derivative is added thereto. Because the oil-based core material and gum arabic are mixed in advance, the suspension of the oil-based core material is stabilized in the presence of the gum arabic as protective colloid. As a result, complex coacervation occurs between the anionic cellulose derivative and the gum arabic which has absorbed on the oil-

based core material and has been suspended, thereby allowing a microcapsule comprising shell material which comprises both of the polymers to be obtained (page 12 lines 5-13).

According to Zgoulli, an oil is added into a mixture of a gastro-resistant polymer such as CAP and gum arabic to form a microcapsule (column 6 lines 58-62). Accordingly, Zgoulli has a different order of addition from the present invention leading to a product with different physical characteristics from compositions derived using the current method. When the gastro-resist polymer and the gum arabic are mixed in advance, a complex is formed so that the oil is prevented from being enclosed suitably.

In Matsukawa, a mixture of a shell-forming material such as polymethylmethacrylate and core material was gradually added to a solution of gum arabic to form a microcapsule (See Example I). Thus, Matsukawa is silent about an enteric anionic cellulose derivative. According to Matsukawa, the shell-forming material is dissolved in a low boiling point solvent (primary solution) which is organic (column 2 lines 2-4, column 2 line 62 to column 3 line 6). As described in the present specification, the organic solvent brings problems of organic residue and operational safety (page 3 lines 6-9). In the present invention, the solvent is not used (page 3 line 25 to page 4 line 5).

As neither Zgoulli or Matsukawa recite every element of the currently claimed methods, neither publication may serve as the basis for an anticipation rejection. Applicant respectfully requests reconsideration and withdrawal of the rejection.

b. Claim Rejections - 35 U.S.C. § 103

Claims 1-9 are rejected under 35 U.S.C. § 103 as being unpatentable over Grisoni (WO 02/24319) (US equivalent 7,067,153) in view of Iwasaki (US 4,349,454) or Maeda (US 5,700,397).

To establish a *prima facie* case of obviousness, there needs to be (1) some suggestion or motivation to modify the reference or to combine reference teachings, (2) a reasonable expectation of success, and (3) the prior art references, when combined, must teach or suggest all the limitations of the claimed invention. See MPEP §2143 (Aug. 2001). "Both the suggestion and the reasonable expectation of success must be founded in the prior art, not

in the applicant's disclosure." *In re Vaeck*, 947 F.2d 488, 493 (Fed. Cir. 1991). Applicants respectfully assert that the Office has not met its burden.

According to Grisoni, a mixture of a hydrophilic polymer and an oil component is heated above the gel temperature of the hydrophilic polymer and then cooled to a temperature below the gel point of the hydrophilic polymer to form a microcapsule (column 13 lines 17-55). Thus, Grisoni takes an advantage of the thermal gelation phenomenon. As the Examiner indicates, Grisoni is silent regarding the use of gum arabic. Moreover, although hydroxypropylmethyl cellulose and phthalate (HPMCP) is listed as one of hydrophilic polymers (column 3 lines 50-51), HPMCP cannot produce a microcapsule according to the Grisoni methodology described above, because HPMCP does not gel thermally.

The Office attempts to remedy the deficiencies of Grisoni with Iwasaki and Maeda. However, Applicants believe that Iwasaki and Maeda provides results that must be considered during any analysis of whether the claims are obvious. See MPEP § 2143.01. It is well settled law that prior art teaching away from the claimed invention is highly relevant in any determination of whether the claimed invention would have been obvious. See, for example, *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984).

Iwasaki teaches the use of a hydrophobic organic solvent (See, for example, the Abstract). As described above, one of the objects of the present invention is to avoid using an organic solvent. Thus, Iwasaki never teaches the present invention and directs a person skilled in the art to conditions outside the current invention. Maeda describes superiority of hemicellulose over gum arabic (column 2 lines 2-3 and 25-27, column 5 lines 11-14 and Comparative Example 1). Accordingly, Maeda teaches away of use of gum arabic. In addition, Applicants note that Maeda is silent about the enteric anion cellulose. Based on the above, the claims of the current invention are not obvious over the teachings of Grisoni, Iwasaki, and Maeda.

Applicant respectfully request reconsideration and withdrawal of the rejection.

CONCLUSION

The present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date April 27, 2007

By 

FOLEY & LARDNER LLP

Customer Number:

22428

PATENT TRADEMARK OFFICE

Telephone: (202) 672-5569

Facsimile: (202) 672-5399

Stephen B. Maebius

Attorney for Applicant

Registration No.: 35,264